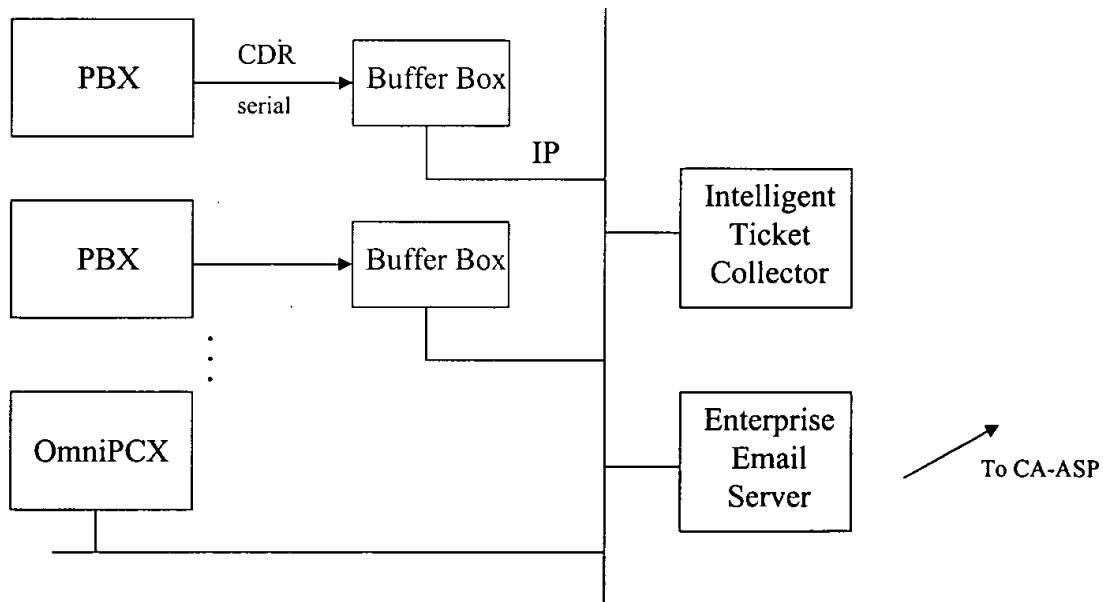


A Novel Architecture for ASP-based Call Accounting Based on the Intelligent Ticket Collector (ITC)

Abstract

Business enterprises require Call Accounting (CA) systems to properly charge-back total telephone charges to individual cost centers and users, and to optimize PSTN trunk requirements and usage. Conventional approaches use dedicated CA software, which must be maintained and managed by the enterprise itself, or outsourced service bureaus, referred to as CA-ASPs which dial-up each enterprise, and transfer Call Accounting CDR ticket data via the PSTN. Although it is desirable to use the Internet to reduce long-distance telephone costs and reduce transfer times associated with CDR data transfer from the Enterprise to the CA-ASP, Internet transfer has not been used for security reasons. This patent describes a new method for using the Internet to transfer CDR data from one or more PBXs within one or more Enterprises to a CA-ASP. The method is based on the Intelligent Ticket Collector (ITC), located within the Enterprise, which pulls data from buffer boxes or OmniPCXs, encrypts this data, and then emails the data to the CA-ASP. Extensions of the idea use the ITC for data switch as well as voice switch information, embedding the ITC within the PBX or OmniPCX itself, and incorporating other functionality such as fraud alarm monitoring and tariff table management within the ITC.



The Intelligent Ticket Collector (ITC) collects data from one or more buffer boxes or OmniPCXs, encrypts the data, and periodically emails the results to a CA-ASP. The CA-ASP decrypts and processes the CDR data. Reports are then made available through https or via secure email sent back to the Enterprise. The method eliminates the PSTN or direct Internet connection between the CA-ASP and the Enterprise.